Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Jim Hein, 2917 Hwy 312, Worden, MT 59088

2. Type of action: Application for Beneficial Water Use Permit 43Q 30108851

3. Water source name: Unnamed Tributary to Yellowstone River

4. Location affected by project: Sections 22 and 23 T3 R29E

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The applicant proposes to divert water from an unnamed tributary (UT) to the Yellowstone River, by means of a pump and diversion dam, at 4.54 CFS from April 1 to April 30 and 5.08 CFS from May 1 to September 30 up to 561.28 AF, from points in the SESWSW Section 22, T3N, R29E (pump) and Government Lot 9 (NWNESW) Section, 22 T3N, R29E, (diversion dam) Yellowstone County, for irrigation and stock use from April 1 to September 30. The Applicant proposes to irrigate 136 AC and water 150 AU of livestock. The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)
Montana Department of Natural Resources and Conservation
Montana Department of Fish, Wildlife and Parks
Montana Department of Environmental Quality
Montana Natural Heritage Program
Montana Sage Grouse Habitat Conservation Program
United States Fish and Wildlife Service
United State Natural Resource Conservation Service

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity **–** The Montana Department of Fish, Wildlife and Parks does not list the Unnamed Tributary (UT) to the Yellowstone River as periodically or chronically dewatered. The proposed use decreases the flow and volume of water in the UT. The proposed points of diversion are close to the confluence with the Yellowstone River in an area on multiple side-channels. Decrease in the flow of the UT may cause it to be periodically dewatered but it is not used for fish or other beneficial environmental purposes.

Determination: No significant impact

Water quality **–** The Montana Department of Environmental Quality does not monitor the water quality in the UT. Because much of the water in the UT is waste water and runoff from a large irrigation project, diversion to flood irrigate crop land may improve the water quality prior to reaching the Yellowstone River.

Determination: Possible positive impact

Groundwater **–** The use of water for flood irrigation will increase infiltration from the irrigation and increase groundwater quantity. The total change in infiltration volume is likely to be small because the proposed diverted volume is small.

Determination: No significant impact

DIVERSION WORKS – The diversion works include a pump in the UT and an existing diversion dam and ditch. No channel impacts, flow modifications, barriers or removal of riparian vegetation is proposed. The diversion dam could create a barrier to fish migration but this UT is not a natural channel nor monitored by the Montana Department of Fish Wildlife and Parks.

Determination: No significant impact

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species **–** According to the Montana Natural Heritage Program, there are no plant species of concern in the project area. There a ten animal species of concern including the Black-tailed Prairie Dog, Spotted Bat, Hoary Bat, Little Brown Myotis, Great Ble Heron, Greater Sage Grouse, Long-billed Curlew, Spiny Softshell, Greater Short-horned Lizard and Sauger. No change to habitat necessary for these species is proposed. The irrigation will not create a barrier to fish or flying animals. The project area is within general sage grouse habitat as mapped by the Montana Sage Grouse Habitat Conservation Program. Carolyn Sime in a letter dated October 27, 2016, concluded that the proposed activity was consistent with the Montana Sage Grouse Conservation Strategy. The project will be to irrigate existing agricultural land. No surface disturbance or change in land use is proposed.

Determination: No significant impact

Wetlands **–** There are no wetlands within the project area and no wetlands are proposed.

Determination: No impact

Ponds – There are no ponds within the project area and no ponds are proposed.

Determination: No impact

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE – The dominant soil type in the project area is Glenberg loam with low slopes. This is a well-drained soil that is slightly to moderately saline. Flood irrigation will not affect soil quality or stability. Flood irrigation is suggested by soil experts in cases of saline soils.

Determination: No significant impact

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS – The current vegetation in the area is agricultural either irrigated crop land or grazing. The addition of irrigation will not substantially alter the vegetative cover. There is the potential to spread noxious weeds during the installation of pumps and the distribution of water. It will be the responsibility of the landowner to monitor and prevent the establishment and spread of noxious weeds.

Determination: No significant impact

AIR QUALITY – Irrigation of agricultural land has no potential to alter air quality. Use of a PTO from a tractor to operate the pump will create exhaust from the tractor.

Determination: No significant impact

HISTORICAL AND ARCHEOLOGICAL SITES – The project area is not on State or Federal Lands.

Determination: Not applicable

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY – The only additional demand on environmental resources not already addressed is the need for energy to operate the pump.

Determination: No significant impact

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS – There are no known locally adopted environmental plans or goals.

Determination: No impact

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES – There are no nearby wilderness areas and no access roads cross the project area. The project is located along the banks of the Yellowstone River but is set back from the riparian areas and will not limit fisherman access to the river.

Determination: No significant impact

HUMAN HEALTH - Irrigation of agricultural land has no potential to negatively affect human health.

Determination: No impact

PRIVATE PROPERTY - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No__**X**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights*.

Determination: No impact

OTHER HUMAN ENVIRONMENTAL ISSUES - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

Impacts on:

(a) *Cultural uniqueness and diversity?* No significant impact

(b) *Local and state tax base and tax revenues?* No significant impact

(c) *Existing land uses?* No significant impact

(d) *Quantity and distribution of employment?* No significant impact

(e) *Distribution and density of population and housing?* No significant impact

(f) *Demands for government services?* No significant impact

(g) *Industrial and commercial activity?* No significant impact

(h) *Utilities?* No significant impact

(i) *Transportation?* No significant impact

(j) *Safety?* No significant impact

(k) *Other appropriate social and economic circumstances?* No significant impact

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: No secondary impacts are recognized.

Cumulative Impacts: No cumulative impacts are recognized

3. *Describe any mitigation/stipulation measures:* None

4. ***Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** The only alternative to the proposed project is the no-action alternative. The no-action alternative prevents the land owner from improving efficiency and production on agricultural land. The no-action alternative has no significant environmental advantages over the proposed project.

PART III. Conclusion

1. ***Preferred Alternative***: Issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

2 ***Comments and Responses:*** None

3. ***Finding:***
*Yes___ No_**X**__ Based on the significance criteria evaluated in this EA, is an EIS required?*

If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this proposed action: No significant environmental impacts associated with the proposed project were recognized and the irrigation system may have positive environmental effects. For these reasons, an environmental assessment is the appropriate level of analysis.

Name of person(s) responsible for preparation of EA:

Name: Mark Elison
Title: Hydrologist
Date: 12/28/2016